		Exploring Aeron	
2010 Science			
Academic Content Standards			
Ohio Science			
Grade 5			
Activity/Lesson	State	Standards	
			Movement can be measured by speed. The
Fundamentals of			speed of an object is calculated by determining
Aeronautics (145-176)	ОН	SCI.5.PS.1.1.a	the distance (d) traveled in a period of time (t).
			Earth pulls down on all objects with gravitational
			force. Weight is a measure of the gravitational
			force between an object and the Earth. The
Fundamentals of			weight of the object and amount of force applied
Aeronautics (145-176)	ОН	SCI.5.PS.1.1.b	affect the speed of the object.
			Movement can be measured by speed. The
			speed of an object is calculated by determining
Wings(177-208)	ОН	SCI.5.PS.1.1.a	the distance (d) traveled in a period of time (t).
			Earth pulls down on all objects with gravitational
			force. Weight is a measure of the gravitational
			force between an object and the Earth. The
\A!'		001500441	weight of the object and amount of force applied
Wings(177-208)	ОН	SCI.5.PS.1.1.b	affect the speed of the object.
A: 1 0 1 1/000			Movement can be measured by speed. The
Airplane Control(209-		00150044	speed of an object is calculated by determining
256)	ОН	SCI.5.PS.1.1.a	the distance (d) traveled in a period of time (t).
			Earth pulls down on all objects with gravitational
			force. Weight is a measure of the gravitational
Aimalana Cambral/000			force between an object and the Earth. The
Airplane Control(209-		0015 00 4 4 5	weight of the object and amount of force applied
256)	ОН	SCI.5.PS.1.1.b	affect the speed of the object.
			Light travels and maintains its direction until it
Airmiana Cantral/200			interacts with an object or when it moves from
Airplane Control(209-		CCL 5 DC 4 2 a	one medium to another, and then it can be
256)	ОН	SCI.5.PS.1.2.a	reflected, refracted or absorbed.
			Movement can be measured by speed. The
How on Airplana Flica	OH	SCLE DS 1.1 a	speed of an object is calculated by determining
How an Airplane Flies	ОП	SCI.5.PS.1.1.a	the distance (d) traveled in a period of time (t).
			Earth pulls down on all objects with gravitational
			force. Weight is a measure of the gravitational force between an object and the Earth. The
How an Airplane Flies	ОН	SCI.5.PS.1.1.b	weight of the object and amount of force applied affect the speed of the object.
TIOW ATTAITPIATE FILES	011	301.3.F3.1.1.D	Earth pulls down on all objects with gravitational
			force. Weight is a measure of the gravitational
			force between an object and the Earth. The
			weight of the object and amount of force applied
The Activity Center	ОН	SCI.5.PS.1.1.b	affect the speed of the object.
THO AUGUST OFFICE		301.0.1 0.1.1.0	Movement can be measured by speed. The
			speed of an object is calculated by determining
Science of Flight	ОН	SCI.5.PS.1.1.a	the distance (d) traveled in a period of time (t).
Colorido di Filigiti	011	CC1.0.1	uno diotarios (d) traversa in a period of time (t).

			force. Weight is a measure of the gravitational
			Earth pulls down on all objects with gravitational
			force between an object and the Earth. The
Intro to Aeronautics			weight of the object and amount of force applied
(109-123)	ОН	SCI.5.PS.1.1.b	affect the speed of the object.
(109-123)	OH	301.3.53.1.1.0	Light travels and maintains its direction until it
			interacts with an object or when it moves from
Intro to Aeronautics			one medium to another, and then it can be
	ОП	SCI 5 DS 1 2 a	· ·
(109-123)	ОН	SCI.5.PS.1.2.a	reflected, refracted or absorbed.
		Exploring Aeron	autics
		2010 Science	
		Academic Content S	
		Academic Content 3	Standards
Ohio Science		Academic Content C	standards
Ohio Science Grades 5-8			standards
	State	Standards	standards
Grades 5-8	State	Standards	Develop descriptions, models, explanations and
Grades 5-8 Activity/Lesson	State OH		
Grades 5-8 Activity/Lesson Tools of		Standards	Develop descriptions, models, explanations and predictions;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of	ОН	Standards SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326)		Standards	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics	ОН	Standards SCI.5-8.5 SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of	ОН	Standards SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight	ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight	ОН	Standards SCI.5-8.5 SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight	ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight	ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight Integrating with Aeronautics	ОН ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3 SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions; Analyze and interpret data;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight Integrating with Aeronautics Intro to Aeronautics	ОН ОН ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3 SCI.5-8.5 SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions; Analyze and interpret data; Use appropriate mathematics, tools and
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight Integrating with Aeronautics Intro to Aeronautics (109-123)	ОН ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3 SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions; Analyze and interpret data;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight Integrating with Aeronautics Intro to Aeronautics (109-123) Intro to Aeronautics	ОН ОН ОН ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3 SCI.5-8.4 SCI.5-8.3	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions; Analyze and interpret data; Use appropriate mathematics, tools and techniques to gather data and information;
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Science of Flight Integrating with Aeronautics Intro to Aeronautics (109-123) Intro to Aeronautics (109-123)	ОН ОН ОН ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3 SCI.5-8.5 SCI.5-8.5	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions; Analyze and interpret data; Use appropriate mathematics, tools and
Grades 5-8 Activity/Lesson Tools of Aeronautics(257-326) The Tools of Aeronautics Science of Flight Integrating with Aeronautics Intro to Aeronautics (109-123) Intro to Aeronautics	ОН ОН ОН ОН ОН	Standards SCI.5-8.5 SCI.5-8.5 SCI.5-8.3 SCI.5-8.4 SCI.5-8.3	Develop descriptions, models, explanations and predictions; Develop descriptions, models, explanations and predictions; Use appropriate mathematics, tools and techniques to gather data and information; Develop descriptions, models, explanations and predictions; Analyze and interpret data; Use appropriate mathematics, tools and techniques to gather data and information;

Scientific Method(124-			Use appropriate mathematics, tools and
144)	ОН	SCI.5-8.3	techniques to gather data and information;
Scientific Method(124-	011	001.00.0	toominques to gather data and information,
144)	ОН	SCI.5-8.4	Analyze and interpret data;
		Exploring Aeron	autics
		2010 Science	
		Academic Content S	Standards
Ohio Science			
Grade 6			
Activity/Lesson	State	Standards	
Fundamentals of			Each atom takes up space, has mass and is in constant motion. Mass is the amount of matter
Aeronautics (145-176)	ОН	SCI.6.PS.1.1.a	in an object.
Fundamentals of Aeronautics (145-176)	ОН	SCI.6.PS.1.3.a	Objects and substances in motion have kinetic energy.
Fundamentals of Aeronautics (145-176)	ОН	SCI.6.PS.1.4.a	An object's position and speed can be measured and graphed as a function of time.
Wings(177-208)	ОН	SCI.6.PS.1.4.a	An object's position and speed can be measured and graphed as a function of time.
Airplane Control(209- 256)	ОН	SCI.6.PS.1.1.a	Each atom takes up space, has mass and is in constant motion. Mass is the amount of matter in an object.
Airplane Control(209- 256)	ОН	SCI.6.PS.1.2.a	Atoms and molecules are not changed in structure when a substance undergoes a change of state; the amount of motion of the atoms and molecules is changed. Thermal energy is a measure of the motion of the atoms and molecules in a substance.
Airplane Control(209-256)	ОН	SCI.6.PS.1.3.a	Objects and substances in motion have kinetic energy.
Airplane Control(209-256)	ОН	SCI.6.PS.1.4.a	An object's position and speed can be measured and graphed as a function of time.
Science of Flight	ОН	SCI.6.PS.1.1.a	Each atom takes up space, has mass and is in constant motion. Mass is the amount of matter in an object.
Science of Flight	ОН	SCI.6.PS.1.2.a	Atoms and molecules are not changed in structure when a substance undergoes a change of state; the amount of motion of the atoms and molecules is changed. Thermal energy is a measure of the motion of the atoms and molecules in a substance.
Science of Flight	ОН	SCI.6.PS.1.3.a	Objects and substances in motion have kinetic energy.
Science of Flight	ОН	SCI.6.PS.1.4.a	An object's position and speed can be measured and graphed as a function of time. Minerals are naturally occurring, inorganic solids that have a defined chemical composition.
Integrating with Aeronautics	ОН	SCI.6.ESS.1.1.a	Minerals have properties that can be observed and measured. Minerals form in specific

Integrating with			An object's position and speed can be
Aeronautics	ОН	SCI.6.PS.1.4.a	measured and graphed as a function of time.
Intro to Aeronautics			Objects and substances in motion have kinetic
(109-123)	ОН	SCI.6.PS.1.3.a	energy.
Intro to Aeronautics			An object's position and speed can be
(109-123)	ОН	SCI.6.PS.1.4.a	measured and graphed as a function of time.
		Exploring Aeron	autics
		2010 Scienc	e
		Academic Content S	Standards
Ohio Science			
Grade 7			
Activity/Lesson	State	Standards	
			When substances are combined in a mixture,
			the new product may have different properties,
How an Airplane Flies	ОН	SCI.7.PS.1.1.b	but the amount of mass does not change.
		Exploring Aeron	
		2010 Scienc	
		Academic Content S	Standards
Ohio Science			
Grade 8			
Activity/Lesson	State	Standards	
			Forces can be added. The net force on an
			object is the sum of all of the forces acting on
Fundamentals of		2012 00 4 21	the object. The net force acting on an object can
Aeronautics (145-176)	ОН	SCI.8.PS.1.2.b	change the object's direction and/or speed.
			When the net force is greater than zero, the
			object's speed and/or direction will change.
F da a. tala a. t			When the net force is zero, the object remains at
Fundamentals of		661 0 06 4 0 5	rest or continues to move at a constant speed in
Aeronautics (145-176)	UH	SCI.8.PS.1.2.c	a straight line.
			Forces can be added. The net force on an
			object is the sum of all of the forces acting on
Mingo(177, 200)	OH	SCI.8.PS.1.2.b	the object. The net force acting on an object can
Wings(177-208)	ОН	301.6.F3.1.2.0	change the object's direction and/or speed.
			When the net force is greater than zero, the
			object's speed and/or direction will change.
			When the net force is zero, the object remains at
\\/ings(177, 208)	ОН	SCI.8.PS.1.2.c	rest or continues to move at a constant speed in
Wings(177-208) Airplane Control(209-	OII	301.0.53.1.2.0	a straight line. Magnetic, electrical and gravitational forces can
256)	ОН	SCI.8.PS.1.1.a	act at a distance.
Airplane Control(209-		001.0.1 0.1.1.4	The motion of an object is always measured
256)	ОН	SCI.8.PS.1.2.a	with respect to a reference point.
200)	011	JOI.U.I J. I.Z.d	Forces can be added. The net force on an
			object is the sum of all of the forces acting on
Airplane Control(209-			the object. The net force acting on an object can
256)	ОН	SCI.8.PS.1.2.b	change the object's direction and/or speed.
200)	011	001.0.1 0.1.2.0	onange the object a direction and/or specu.

			When the net force is greater than zero, the
			object's speed and/or direction will change.
			When the net force is zero, the object remains at
Airplane Control(209-			rest or continues to move at a constant speed in
256)	OH	SCI.8.PS.1.2.c	a straight line.
			Magnetic, electrical and gravitational forces can
How an Airplane Flies	ОН	SCI.8.PS.1.1.a	act at a distance.
			The motion of an object is always measured
How an Airplane Flies	ОН	SCI.8.PS.1.2.a	with respect to a reference point.
			Forces can be added. The net force on an
			object is the sum of all of the forces acting on
			the object. The net force acting on an object can
How an Airplane Flies	ОН	SCI.8.PS.1.2.b	change the object's direction and/or speed.
			When the net force is greater than zero, the
			object's speed and/or direction will change.
			When the net force is zero, the object remains at
			rest or continues to move at a constant speed in
How an Airplane Flies	ОН	SCI.8.PS.1.2.c	a straight line.
			Forces can be added. The net force on an
			object is the sum of all of the forces acting on
			the object. The net force acting on an object can
The Activity Center	ОН	SCI.8.PS.1.2.b	change the object's direction and/or speed.
			The motion of an object is always measured
Science of Flight	ОН	SCI.8.PS.1.2.a	with respect to a reference point.
			Forces can be added. The net force on an
			object is the sum of all of the forces acting on
			the object. The net force acting on an object can
Science of Flight	ОН	SCI.8.PS.1.2.b	change the object's direction and/or speed.
			When the net force is greater than zero, the
			object's speed and/or direction will change.
			When the net force is zero, the object remains at
			rest or continues to move at a constant speed in
Science of Flight	OH	SCI.8.PS.1.2.c	a straight line.
			When the net force is greater than zero, the
			object's speed and/or direction will change.
			When the net force is zero, the object remains at
Integrating with			rest or continues to move at a constant speed in
Aeronautics	ОН	SCI.8.PS.1.2.c	a straight line.